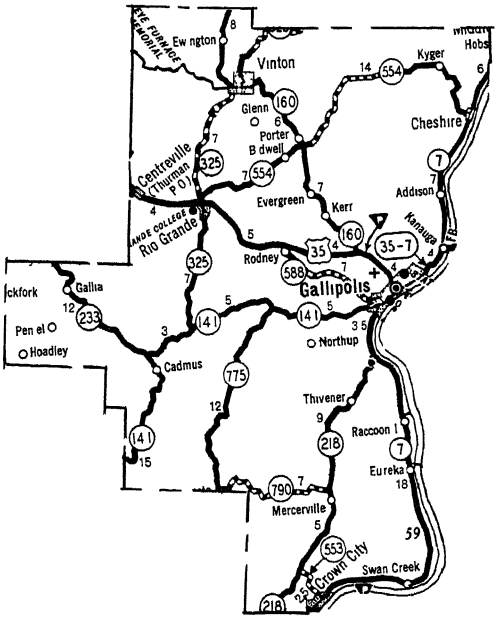
ANALYSIS OF COSTS AND PROBLEMS INVOLVED IN A PROGRAM FOR STIMULATING MOVEMENT OF LAND AND HUMAN RESOURCES FROM AGRICULTURE IN GALLIA COUNTY, OHIO

REGINALD K. HARLAN and RICHARD R. NEWBERG

SEPTEMBER 1962

A. E. SERIES 332



OHIO AGRICULTURAL EXPERIMENT STATION

WOOSTER, OHIO

TABLE OF CONTENTS

TABLE OF CONTENTS (Con't)

ANALYSIS OF COSTS AND PROBLEMS INVOLVED IN A PROGRAM FOR STIMULATING MOVEMENT OF LAND AND HUMAN RESOURCES FROM AGRICULTURE IN GALLIA COUNTY, OHIO

By
Reginald K. Harlan and Richard R. Newberg[4]

SUMMARY

The basic problem of agriculture, as advanced by some economists, is the approximate three-fourths of the nation's farmers who are forced to subsistence living with an average net income below $2,500. Their small units limit the application of technical efficiencies, and available family labor is underemployed. Agricultural price support programs have failed to provide any substantial assistance for these farm families. This condition will persist unless they can acquire control of more land and capital, find part-time off-farm work, or shift to full-time non-farm employment.

This study was confined to one of twenty-two low-income counties in Southeast Ohio. Gallia County was selected because of its relatively large number of low-income farmers with few alternative opportunities.

The basic objective of the study was to determine the most effective and acceptable means of stimulating land and labor retirement from agriculture.

Method of study included enumeration of resources, characteristics, and peculiarities of the county and its people and identification of available opportunities. Sources were census data, other standard statistical sources, public records, and publications. Primary sources were interviews with farmers, businessmen, and county leaders.

Forty-three per cent of the farmers indicate they would be willing to participate in a reasonable period of retraining if facilities and instructions were made available without charge. Forty-two per cent of the farmers were under 45 years of age, and 70 per cent under 50. The average level of education was 10 years school completed, a reasonably adequate foundation on which to develop new skills, especially since the desire is present. Thirty-five of the 57 farmers who would not retrain said they were too old. Only three per cent of these were under 55.

Nineteen per cent expressed willingness to sell their farms and move to a full-time non-farm job. Fifteen of the 19 would move without monetary assistance if they could get a good job with a reasonable prospect of permanency. Size of their farms ranged from 51 to 305 acres (average, 190 acres). Sale price ranged from $34 to $230 per acre. Forty-five per cent said they would sell for less than $75 per acre.

The authors wish to express their appreciation to Dr. Wallace Barr and Dr. Mervin G. Smith for their constructive criticisms and advice in the conduct, this research and the preperation of the manuscript and to the many people in Gallia County who provided the data used in the study.

Ninety-six per cent of the farmers and all of the businessmen interviewed were in favor of bringing in more industry. Essential resources for industrial development are available and action to attract industry is in progress.

The most likely means of increasing movement of land from agriculture appears to be through contract purchase agreements with a private entrepreneur or the government. Through a contract providing for nominal initial payments and amortization of the balance, a buyer could consolidate small units to create economic scale. Thus, the land could be allocated to its most appropriate uses such as forestry, permanent grass, and recreation. Provisions such as an option to continue living in the farm house the remainder of their lives would appeal to some farmers since this would facilitate retirement without disrupting community ties. Other provisions would assist farmers in making the transition into non-farm employment.

To achieve greater vocational and geographical mobility of labor, other complementary programs are needed. These should include (1) retraining of farm labor, (2) assistance in locating employment, (3) financial aid for moving, and (4) industrial development in the county.

These programs are feasible if implementing and financing assistance is available from state and federal governments. Benefits that could accrue from programs specifically directed toward rehabilitating underemployed farmers and allocating land to appropriate uses seem to justify the costs involved as being reasonable investment in the public interests.

INTRODUCTION

Commodity surpluses, low prices, and mounting costs of agricultural programs are generally advanced as the major problems of agriculture. However, many agricultural economists maintain that the basic problem is the large number of low-income farmers.

The 1954 Census of Agriculture's classification of farms according to average sales and net income revealed that approximately three-fourths have had an average net income of less than $2,500 together these three-fourths account for less than one-fourth of total commercial sales. This seems to be sufficient evidence for concluding that low-income farmers constitute the basic problem, and that other problems in agriculture are related to and grow out of failures in attempts to solve this problem.[1]

Past and current agricultural programs were developed in the belief that controlling production through acreage allotments, marketing quotas and supporting prices would bring an increase in incomes of all farmers, and would assure a reasonable returns on investment and reasonable wages for farm labor.

Only a little more than one-fourth of the nation's farmers have realized appreciable benefits from price support programs (one-fourths of the farmers produce three-fourths of total commercial sales). The remaining three-fourths have volume of sales so small that they realize little from the price support type of aid. Their farm units are too small to employ more than limited amounts of the technical efficiencies of production or to fully employ available family labor.

Some of these small inefficient units may be found throughout all of agriculture, but there are some areas where large concentrations of low production and low income farms exist. They occur in the Southeast, the Ozarks, the cut-over areas of states around the Great Lakes, and the Spanish-American settlements of the West. [2]

Ohio has an area of about 22 counties in its southeastern section in which a concentration of low-income farmers is found. This study is concerned with Gallia County, one of the twenty-two low-income counties of Ohio. This county was chosen because it seemed representative of the area in most respects. It had a relatively large number of low-income farmers with few alternative opportunities within the county.

Justification of This Study

Historical evidence indicates that the low-income farm problem cannot be solved by the individual farmer or by local areas alone. Under prevailing conditions the rate of adoption of new technology is reducing the labor requirements of agriculture more rapidly than labor is adjusting to the situation. Some farmers are adjusting by finding part-time jobs to supplement their incomes. Others are shifting to full-time non-farm employment as opportunities occur. Still others are buying or renting more land to increase efficiency in use of capital and labor. Despite these adjustments the rate of improvement is slow.

There are many barriers to the adjustment of agricultural land and labor as rapidly as is needed by our economy. Mobility of labor is decreased because of (1) strong community ties, (2) lack of training and lack of knowledge of alternatives, (3) a lack of alternative opportunities within the area, (4) the risks and uncertainties connected with an

---

1 Richard R. Newberg, "What Might Be Done To Solve Our Agricultural Problem" (mimeographed paper), Department of Agricultural Economics and Rural Sociology, The Ohio State University, 1960, p. 8.

2 William E. Hendrix, "Problems of Low-Income Farmers, "Farm Policy Forum, Vol. 11, No. 1, Summer 1958 (Ames:Iowa State College Press, 1958) p. 8.

industrial job during periods of recession, (5) the difficulty of adjusting to city life, (6) the cost of moving, and (7) the higher cost of housing and living in town. Land use adjustment in these low-income areas is not likely to improve until greater mobility of farm labor is achieved.

Despite the interdependence of all areas of our economy, each area (and/or county within an area) has characteristics peculiar to itself. For example, there are differences in location with respect to industrial centers; natural resources; skills and abilities of human resources and such factors as climate, topography, and scenery which might be favorable for development of recreational areas.

These variations in areas should be taken into account when considering low-income farmers. Before assistance can be initiated for these farmers, a thorough study of each area is necessary.

Existing, as well as potential opportunities, should be identified. "A fairly complete enumeration of all agricultural resources including, types, quality, and present uses of land, rates of production, characteristics of communities, and characteristics and skills of farmers is needed. Study needs to be made of social barriers to mobility and economic and social effects of farmer relocation on individuals, families, and communities. [1]

Objectives of the Study

The over-all objective of this analysis is to determine the requirements and implications of initiating an effective program to stiumulate the necessary adjustment of agricultural labor and land in Gallia County, Ohio.

The specific objectives of this study are--

1. To determine the remuneration necessary to induce farmers to retire their land from production.
2. To determine size and type of farm which farmers would most readily subject to retirement at different levels of compensation.
3. To determine the most efficient use pattern for the retired land, such as reforestation, recreational use, permanent grass, emergency grazing or a combination of these.
4. To determine what kind of zoning program would be most effective in order to maintain a good land-use program.
5. To determine the minimum compensation necessary to induce farmers to shift from farm to non-farm employment.
6. To determine available resources to facilitate shifting to alternative opportunities.
   a. Types of industrial and other employment opportunities available
   b. Possibilities of new industrial development in this area
   c. General educational level and skill of farmers
   d. Proportion of farmers that would be able to shift to non-farm jobs in the area and remain in residence on the farmstead
7. To determine the type of training and other aid needed to equip farmers for industrial or other non-farm employment.
   a. Length of training program required
   b. Type of training most farmers would be willing to undertake
   c. Facilities for conducting the schools
8. To determine labor needs for alternative use of retired farm land and potential employment of retired farmers for these purposes:

[1] Newberg, p. 21.

a. Recreational land uses
b. Forestry land uses
c. Grass land uses

9. To determine effects of such a program on:
   a. Agricultural production
   b. Supply response to price changes
   c. Agricultural efficiency
   d. Community institutions and economy

A review of literature suggests that certain conditions generally are accepted as contributing to the complexity of the agricultural problem. This study is based on the accepted existence of these conditions.

They are:

1. Low returns to resources, particularly labor, are due to excessive resources in agriculture.
   a. Overproduction results from more resources being used by commercial agriculture than are necessary to supply the market demand at a price which will yield a reasonable return.
   b. Low-income farmers have insufficient land and capital for efficient use of labor.
2. More efficient allocation of land and labor can be achieved by stimulating the retirement of land and labor from agriculture.
3. Annual income and level of living can be raised for both the farmers remaining and those transferring to non-farm employment.
4. Many of the county's low-income farm people have the desire and the capacity to become more productive when reasonable opportunities are available.

Method of Study

Gallia County was chosen from the 22 counties in the low-income area of Ohio after comparisons were made of available statistical data of each county. Comparisons were of data from the 1954 Census of Agriculture pertaining to rural farm population, number of farm operators, number of operators working off farms 100 days or more, percent of all operators working off farms 100 days or more, average size of farms, average gross income per farm, average net income per farm, average operating expenses per farm, and average number of cropland acres per farm. Comparisons were also made of data from the County City Data Book of 1956 (Statistical Abstract Supplement) as to the number of manufacturing establishments in each county, and value added to county income from the manufacturing industry. Data were also secured from the Directory of Manufacturers, Ohio, 1959 for comparing hourly wage rates of non-supervisory industrial workers in each county.

These comparisons showed that Gallia County's economy is more dependent on agriculture than the other twenty-one. It ranked third in rural farm population and sixth in number of farm operators. It ranked eighteenth in number of manufacturing establishments and twenty-second both in employment in manufacturing, and hourly wage rates for factory workers. Of 119 workers, 60 received wages of less than $1.50 per hour and 29 received from $1.50 to $1.75 per hour.. Average number of workers per county for the twenty-two county area is 2,203. Of these, nineteen percent earned $1.50 per hour or less, fourteen percent earned $1.50 to $1.75, eleven percent earned $1.75 to $2.00, nineteen percent earned $2.00 to $2.25, and thirty-seven percent earned $2.25 and above per hour.

The $2,638 average gross income per farm was slightly below the twenty-two county average of $2,826. Average size of farms was 101 acres, next to the smallest average of the group, and cropland per farm was 25 acres, also next to last in the group. Gallia County ranked seventh in number of farm operators working off farms 100 days or more, but seventeenth in percent of operators working off farms 100 days or more.

Most of the data presented in this study were secured by personal interview of 100 farm families in the county. Farmers were chosen at random. The procedure used in obtaining the sample was based on the method developed by the Statistical Laboratory at Iowa State College, Ames, Iowa and the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D.C. This is known as the "area method of sampling." A general highway map of a county was divided into small areas of from 6 to 24 farms each, and systematically numbered. Once the tentative size of the sample was determined (number of people to be interviewed), a set of random numbers was used to select one or more areas in the county.

The schedule used for recording the information secured from the interviews was divided into four separate parts. Part I was used to record information from both full-time and part-time farmers. Questions pertained to size of farm, tenure of operator, days worked off farm, household composition, current land use, livestock inventory, total farm receipts and expenditures, machinery inventory, and a financial statement.

Part II applied to part-time farmers only. Questions pertained to type of non-farm employment, income from same, tenure, hours spent per week at non-farm work, hours spent per week at farm work, possibility of farm to provide a living without off-farm employment, reasons for going into part-time farming, future plans, interest in full-time employment off the farm, distance he would be willing to move, obstacles to making the change, etc.

Part III of the schedule was used for full-time farmers only. Its questions were concerned with the ability of the farm to provide a good living, future plans for improving level of living, obstacles to these changes, opinion on advisability of young men entering farming in Southeastern Ohio, interest of children in farming, interest of operator in part-time work, attitude toward taking full-time employment off the farm and selling or renting the farm, etc.

Part IV was used with both full-time and part-time farmers. Questions were designed to discover special skills or abilities which would be useful in non-farm work, farmer interest in a free training program to develop present skills or learn a new trade, kind of training desired hours per week he would be willing to devote to training, etc.

A separate schedule was used for recording information from interviews with merchants in Gallipolis, the county seat. It was designed to find the types of development the town merchants felt should be encouraged for Gallia County, their ideas for encouraging industry to locate in the county, what plans have been made to encourage new industry, their concepts of available resources in the county which would attract industry, benefits which would be expected from more industry, etc.

In addition to interviews with farmers and merchants, information was obtained from public records. Other data used in this study are from secondary sources, primarily work of the Department of Agricultural Economics at The Ohio State University.

DESCRIPTION OF THE COUNTY

Natural Characteristics

Location

Gallia County is a part of the unglaciated Appalachian Plateau area of Southeastern Ohio. It is bounded on the north by Vinton and Meigs Counties, on the east by the Ohio River, on the south by Lawrence County, and on the west by Lawrence and Jackson Counties. It contains 471 square miles.

The topography is quite broken and hilly, the only level land being the narrow flood plain and terrace bordering the Ohio River and a few small areas in the Valley of Raccoon Creek. Some of the hills extend about 1,000 feet above sea level, and the elevation at the Ohio River is less than 550 feet.

Table 1 shows how the State Conservation Needs Committee classified Gallia County land according to its capability. This classification was done primarily on the basis of the capability of soils to produce common cultivated crops and pasture plants without deterioration over a long period. The first four classes include land suited for cultivation and other uses, and the last four classes represent land limited in use and generally not suited for cultivation.

Only 1.3 percent of the county's land is Class I. Soils in this class have few limitations that restrict their use. They are suited to a wide range of plants and may be used for cultivated crops, pasture, range, woodland and wildlife. They are nearly level and the erosion hazard (wind or water) is low. They are deep, generally well-drained, and easily worked.

Class II soils have some limitations that reduce the choice of plants or require moderate conservation practices. Soils of this class are gently sloping and are moderately susceptible to wind or water erosion. They may be used for cultivated crops, pasture, range, woodland, or for wildlife food and cover.

The greatest portion is Class III which accounts for almost 31 percent. Soils in this class have severe limitations that reduce the choice of plants, require special conservation practices, or both.

Almost 16 percent of the land in the County is IV. Soils in this class have severe limitations that restrict the choice of plants and require very careful management.

Class VI land accounts for 19.6 percent of the County's total, and Class VII accounts for 16.7 percent. These two classes are limited in use and are not generally suited for cultivation.[3]

Water and Mineral Resources

Minerals found in the county include coal, agricultural limestone, chemical limestone, some petroleum, and sand (molding, natural blending).[4] Coal strip mining in the northern and southeastern sections of the county creates a problem because of the sediment and toxic acid pollution of the streams. The natural scenic beauty of the countryside is also marred by these mining operations.

Surface water supplies are abundant, the main sources being the Ohio River and Raccoon Creek. Sustained low flow of the Ohio River ranges from four billion gallons per day near Steubenville to over seven billion gallons per day at Portsmouth. Such surface supplies would support large scale industrial development if water quality is

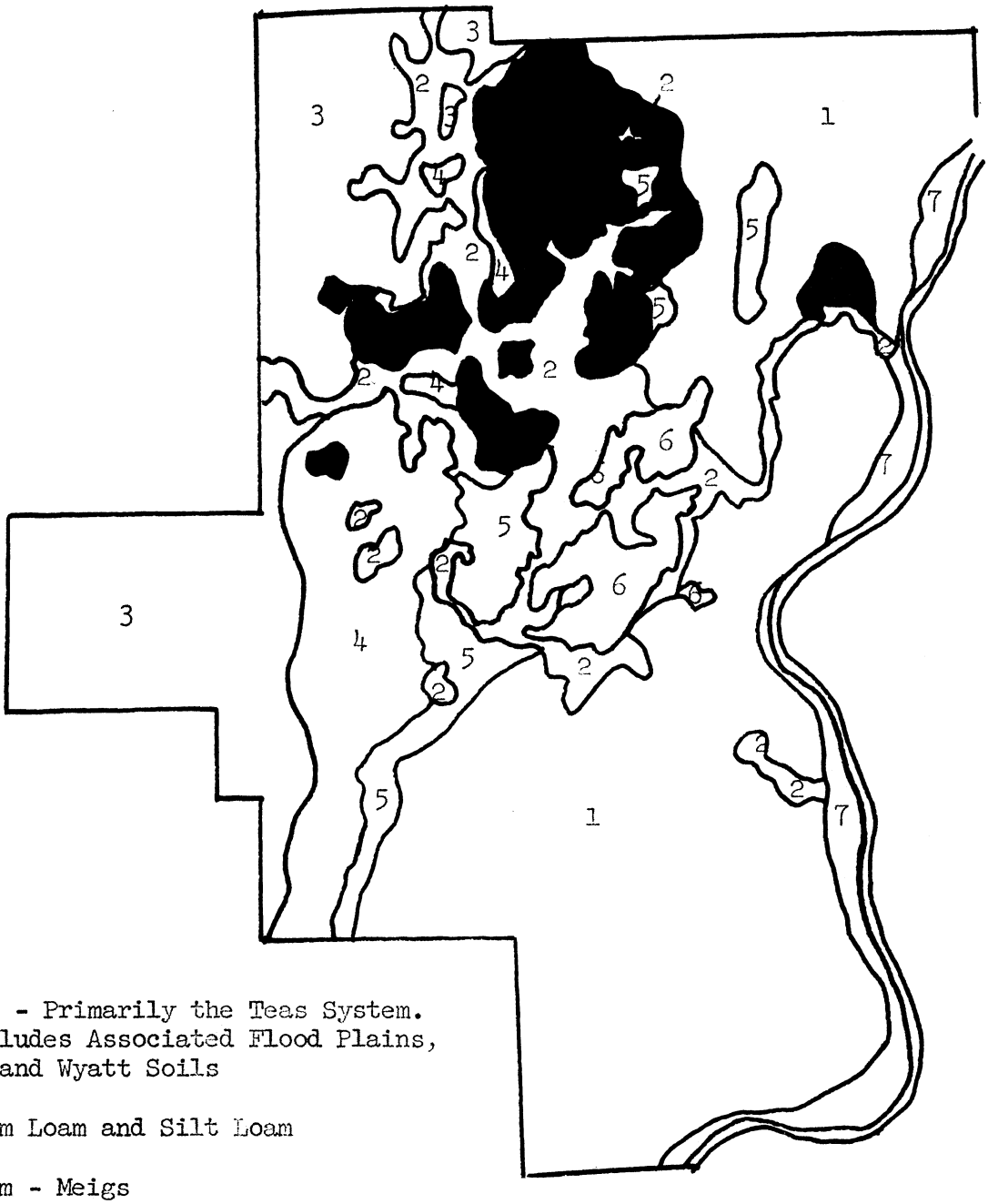
---

[3] The State Conservation Needs Committee, Soil and Water Conservation Needs Inventory, Columbus, Ohio, 1959.

[4] C. J. Botte, Ohio Business Facts, Economic Areas by Counties and State Totals, Research Department, Ohio Chamber of Commerce, February, 1960, pp. 142-146.

Figure 1

Gallia County Soils



Legend

1 Meigs

2 Terraced - Primarily the Teas System. Also includes Associated Flood Plains, Vincent and Wyatt Soils

3 Muskingum Loam and Silt Loam

4 Muskingum - Meigs

Areas of Loess Effect: Tilsit, Coolville Rareden and Deep Phase Meigs

5 Meigs - Belmont - Westmoreland

6 Upshur - Meigs

7 Ohio River Terraces and Bottoms (Huntington, Wheeling)

Source: R. L. Shields, Gallia County Soil Conservation Service, Gallipolis, Ohio, 1959.

satisfactory. Underground water supplies are somewhat spotty over the county. The best sources are areas close to the river systems. Acid mine water is generally of satisfactory quality. Although, taste and odor are at times troublesome.[5]

TABLE 1

Estimates of Present Land Use According to Land-Capability Class, Gallia County, Ohio, 1959

Land-Capability Class	Present Land Use					Per Cent of Total
	Cropland (acres)	Pasture and Range (acres)	Forest and Woodland (acres)	Other (acres)	Total (acres)	
Class I	3,120	448	-	37	3,605	1.3
Class II	29,738	8,723	5,194	1,700	45,355	16.0
Class III	17,714	26,114	31,717	11,855	87,400	30.8
Class IV	4,670	13,767	20,211	5,643	44,291	15.6
Class VI	990	16,483	29,739	8,309	55,521	19.6
Class VII	75	6,912	38,155	2,037	47,179	16.7
Total	56,307	72,447	125,016	29,581	283,351	100.0
Per Cent of Total	20	26	44	10	100	

Source: Data compiled by the State Soil and Water Conservation Needs Committee composed of people who work within the state for such National Department Agencies as: Agricultural Conservation Program Service, Agricultural Research Service, Commodity Stabilization Service, Federal Extension Service, Farmers' Home Administration, Forest Service, and Soil Conservation Service. One representative from each agency served on the committee and the Soil Conservation Service representative served as chairman.

Vegetation and Wildlife

Since much of the land in the county is too steep for cultivation, a relatively high proportion of it is devoted to forestry or pasture. About 44 percent (125,016 acres) of the 283,351-acre total land area is devoted to forest, principally oak.[6]

About 66 percent are in farm land. Of this, 25 percent are devoted to crops, 35 percent to pasture and range, 35 percent to forest and woodland, and 5 percent to roads and waste land (Table 1).

The natural vegetation of the county provides favorable environment for such wildlife as deer, fox, raccoon, rabbits, quail and pheasant.

---

[5]Ohio Department of Natural Resources, Water Resources of Southeastern Ohio, December, 1959.

[6]W. G. McGinnis et. al., Forest Resources of Southeast Ohio, Central States Forest Experiment Station, February, 1960.

Economic and Social Characteristics

Population

Gallia County has a relatively sparce population. Some counties in this section are losing population, but Gallia has experienced some gain during the last three decades. The greatest growth occurred during the last decade with an increase of 1,151 people, up 4 percent from 1950 (Table 2). Density of population now stands at 55 per square mile compared with 235 per square mile for the state average. Urban and rural non-farm population have shown a steady increase since 1910 while the rural farm population has decreased. About 95 percent of the people in the county are white.

TABLE 2

Population, Urban and Rural, Gallia County, Ohio, 1910-1959

Year	Gallia County	Urban	Rural Non-Farm	Rural Farm
1910	25,745	5,560	3,427 [a]	16,758 [a]
1920	23,311	6,061	3,645 [a]	13,605 [a]
1930	23,050	7,106	3,857	12,087
1940	24,930	7,832	5,024	12,074
1950	24,910	7,871	5,765	11,274
1959[b]	26,061	8,740	6,557	10,764

[a]Estimated
[b]Preliminary.

Source: U.S. Bureau of Census, Census of Population, Ohio, 1920-1950 and Preliminary Report for 1960.

Agriculture

Agriculture has always been the most important industry in the county. Approximately one-third of the working population is engaged in farming. Many more are engaged in handling farm products and supplies. Rural population is about 66 percent of total population. Cash receipts from the 1,821 farms totaled $4,971,000 in 1959.

During the 1920's the major farm enterprise were poultry, dairying, fruit, and beef cattle. Current major enterprises are dairying, tobacco, beef cattle, and poultry, listed in order of importance. [1] Table 3 shows the changes in the county relative to number of farms, average size of farms, percent of land in farms, and percent of farmers working off farms 100 days or more.

The number of farms has decreased 34 percent since 1930 while average size of farms has increased 18.2 acres. The change in definition of a farm by the 1959 Census of Agriculture accounts for 144 of the 626 fewer farms in the county since 1954.

[1] Mervin G. Smith et al., Ohio Farm Income, 1959, Department of Agricultural Economics and Rural Sociology, Ohio State University; Ohio Agricultural Experiment Station; and Agricultural Estimates Division and Agricultural Marketing Service, Columbus, Ohio, 1960.

TABLE 3

Number of Farms, Average Size of Farms, Per Cent of Land in Farms, and Per Cent of Operators Working Off Farms 100 Days or More in Gallia County, Ohio, 1929-1959

Year	Number of Farms	Average Size of Farms (Acres)	Per Cent of Land in Farms	Per Cent of Operators Working off Farm 100 Days or More
1929	2,769	91.3	88	a
1939	2,736	91.0	83	19
1949	2,447	96.8	79	28
1954	2,212	109.7	74	35
1959	1,821	109.5	66	41

a Not available.

Source: U.S. Bureau of Census, Census of Agriculture, Ohio 1930-1959.

The new definition describes a farm as a place operated as a unit of 10 acres or more from which the sales of agricultural products totaled $50 or more or a unit of less than 10 acres with agricultural sales of $250 or more. The 1954 Census of Agriculture defined a farm as a unit of three acres or more on which the value of farm production totaled $150 or more, or less than 10 acres, if the agricultural sales totaled $150 or more.

Size of farms has increased 13 percent in the last ten years, but percent of land in farms has decreased 13 percent.

Per cent of operators working off the farm 100 days or more has more than doubled since 1940.

The 1959 Census of Agriculture gives the following breakdown of the types of farms in Gallia County:

Type	Number	Percent
Cash grain	10	.5
Tobacco	160	8.8
Fruit and nut farms	5	.3
Poultry farms	45	2.5
Dairy farms	215	11.8
Livestock farms other than poultry and dairy	180	9.9
General farms	75	4.1
Miscellaneous and unclassified	1,131	62.1
Total	1,821	100%

Five farms together reported sales of $56,875 worth of nursery and greenhouse products, flower and vegetable seeds and plants, flowers, and bulbs. Two of these five farms accounted for 94 percent or $53,600 of the sales.

Some farmers realize cash returns from their woodland. Others cut forest products for use on their farms. During 1959 fifty-five farms reported sales of standing timber valued at $15,542.

Manufacturing

According to the Ohio Directory of Manufacturers, 1959, Department of Industrial Relations, Gallia County ranks eightieth among the state's 88 counties in manufacturing establishments, having 16. It ranks next to last in number of people employed in manufacturing. with 170. The types of establishments include meat packing plants and other food processors; printing and publishing industries; paving mixtures plants; block plants; and stone, clay, and glass products industries. The value added to county gross income by manufacturing in 1958 was $1,200,000, about one-fourth as much as the farm cash receipts.

Transportation

The county is served by five hardtop highways that converge in Gallipolis, the county seat. The two principal arteries are U.S. Route 35 and State Route 7.

There are two rail freight lines serving the county. Other freight services are provided by six trucking companies making daily deliveries in Gallipolis. A seventh company is locally owned.

Daily passenger transportation service is provided by the Eastern Greyhound Bus System.

The nearest municipal airport is at Huntington, 40 miles southeast of Gallipolis. A privately owned field, at Gallipolis, operates a light plane charter passenger and freight service.

The Gallipolis Roller Dam is located ten miles down the Ohio River from Gallipolis.

Recent industrial developments in the Gallipolis vicinity include the Kyger Creek Generating Station located ten miles north of the town. Nearby, on the West Virginia side of the river at Ravenwood, is the Kaiser Aluminum and Chemical Corporation Plant. Immediately across the Ohio River from Gallipolis is a plant of the Celanese Corporation. These plants employ some residents of the county.

Power Facilities

Electric power and natural gas both are available in the county, supplied from privately owned and operated companies. A rural electric association supplies electric power to the rural residents.

Communications

Gallipolis is the communications center of the county. Its post office is a first-class facility with full parcel post services.

The Ohio Bell Telephone Company provides telephone service to the county. It is part of the nationwide direct dialing system. Western Union service is available five and one-half days a week.

The one radio station, WJEH, is licensed for daytime operation, but it is not affiliated with a national network. Three nearby television stations provide reception of programs on three national networks.

The Gallipolis Daily Tribune is published each evening, Monday through Friday. The Gallia Times is a Saturday edition.

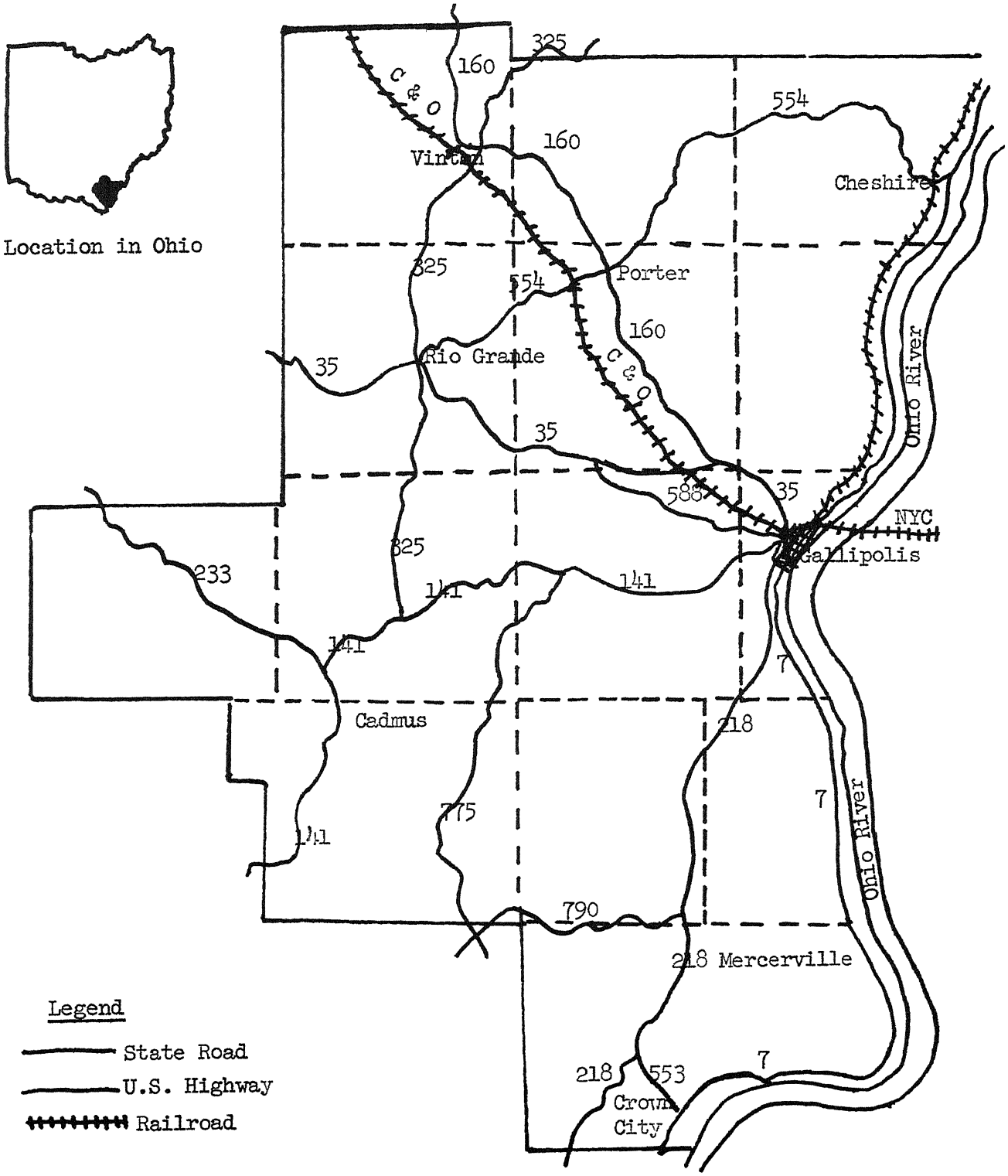
Social and Public Institutions

There are 17 small villages and many rural neighborhoods in the county. Population of villages ranges from 50 to 500. One or more churchas, a school, and a Grange Hall are the principal social centers of the villages.

One Catholic and 11 Protestant churches in Gallipolis represent most of the major denominations.

Figure 2

Highways and Railroads Serving Gallia County in 1960



Source: Official roadmap of Gallia County, Ohio, published by County Engineer. Revised January, 1960.

Two hospitals and two privately-owned clinics in Gallipolis serve Gallia County and the surrounding areas. The Gallipolis State Institute, formerly an epileptic colony, now is devoted to the care and treatment of mental patients. The Institute occupies 64 buildings on 800 acres and employs more than 500 persons from the surrounding communities, some of them part-time farmers.

The Holzer Hospital is a 135-bed, 23-bassinet hospital and has a staff of 18 specialists, 60 registered nurses, six registered X-ray technicians, seven registered laboratory technicians, and a registered pharmacist. It serves an area of five counties in Ohio and one county in West Virginia and employs 250 people, exclusive of its medical staff and student nurses. It is one of four medical centers in Ohio giving complete diagnostic service and has one of the six cancer clinics in the state.

Gallia County has an average of one medical doctor for every 700 citizens compared with the state's ratio of one for every 822 people. The ratio of hospital beds to population is one for every 200 persons. This is one of the greatest concentrations of medical facilities and members of the medical profession in the United States for a town the size of Gallipolis.

Educational facilities include 5 county secondary schools, 4 with grades 9 through 12 and one with grades 7 through 12 and 14 elementary schools. Thirteen of the elementary schools are in separate buildings, five of which are practically new and are in very good condition. Six of the elementary buildings are about 25 years old and are in fair to good condition. Two elementary school buildings in the Southwestern School District are in poor condition, needing repair or replacement.

Of the five county high schools, one building is new, three are only four years old, and one, the Raccoon High School, is over twenty-five years old but in good condition.

Current enrollment of the five county high schools ranges from 73 at Raccoon High to 251 at North Gallia High.

Total assets and liabilities of these schools on June 30, 1959, were as follows:

	Assets	Liabilities
Hannan Trace	179,680.46	$ 238,381.74
Kyger Creek	2,585,135.31	2,136,303.50
North Gallia	10,220,088.65	310,000.00
Raccoon	97,360.88	9,313.58
Southwestern	529,245.58	223,067.50

Most of these liabilities are in the form of bonds outstanding to be retired over a period of years. Kyger Creek, with over $2,000,000 liability also has the largest source of revenue, the Kyger Creek Power Plant. The school tax rate for this district is 6.60 mills per dollar of property value compared with 21.50 mills per dollar value in the Hannan Trace district.

School facilities in the city of Gallipolis consist of five elementary schools, a junior high, and a senior high school. The senior high school building is relatively new and in excellent condition. All other school buildings in the city are in good condition and have capacity in excess of current enrollment also.

The Hannan Trace High School has the least extensive of the high school curriculums in the county. It provides opportunity for a well rounded general high school education, however.

Other educational facilities include the Holzer School of Nursing and the Rio Grande College. The School of Nursing has dormitory and classroom facilities for 100 student nurses. It is located in Gallipolis and is supported by the Holzer Hospital Foundation. Rio Grande College is a four year, liberal arts college with an enrollment of approximately 200 students. It is located about ten miles northwest of Gallipolis. It is financed through private grants.

These public school facilities with fairly extentive curriculum, favorable ratio of assets to liabilities, and the capacity above current enrollment represent a favorable educational climate for attracting new industry and people to the county.

The Gallia County District Library has a total of 33,381 volumes. A bookmobile extends library service to all parts of the county.

Recreational Facilities

A natural boat harbor is formed by waters backed up into Chicamauga Creek by the Gallipolis Roller Dam. Floating fuel facilities, lauching ramps and auto parking facilities are maintained at the Chicamauga basin. Creeks and streams provide fishing, and a lake is being constructed near the village of Vinton to provide an additional 200 to 300 acres of water area for sports.

Other recreational facilities include a nine hole golf course at Gallipolis and a municipally operated public swimming pool. The Kiwanis Club has purchased some 200 acres of wooded land for a campsite and other recreational purposes. An organized Fox Hunting Club maintains land and a building as headquarters for promoting the sport.

Local Government

The county seat, Gallipolis, operates under a city manager form of government. A three-member commission (non-partisan) is elected for a four year term.

Four County Commissioners perform the administrative functions of the county government and adopt an annual appropriation resolution to provide for current expenses of the county.

Distribution of county expenditures among the different agencies is summarized in Table 4.

Sources of revenue for Gallia County are summarized in Table 5.

The county had a balance of $454,922 on December 31, 1959 after total expenditures of $1,389,804.

A summary of local government taxes collected at the county level is as follows:

Real Estate and Public Utility Property Tax	$1,458,665
Inheritance and Estate Taxes	25,158
House Trailer Tax	1,665
General Tangible	133,182
Special Assessments	2,476
Classified Intangible	20,638
Total Net (after deducting fees, refunds, etc.)	$1,641,784

TABLE 4

Distribution of Expenditures to the Different County Activities and Individual Activities' Per Cent of Total, Gallia County, Calendar Year, 1959.

Activity	Expenditures[a]	Per Cent of Total	Per Cent of Grand Total
Operation, Maintenance and Interest:			
General Government	151,120	13.4	
Protection to Persons and Property	47,963	4.2	
Agriculture Extensions, Bounties, etc.	10,264	0.9	
Health (hospitals, care, etc.)	21,881	1.9	
County Board of Health	22,752	2.0	
Charities and Relief	451,735	40.0	
Welfare and Corrections	206	.02	
Sanitation and Drainage	000		
Public Service Enterprises	000		
Highways and Bridges	390,390	34.6	
County Board of Education	19,516	1.7	
Insurance and Pensions	9,630	.9	
Interest	000		
Miscellaneous	3,839	.4	
Total	$1,129,303		81.2
Outlay Expenditures:			
General Government	$ 5,330	11.7	
Protection to Persons and Property	2,356	5.2	
Health Charities and Welfare	000		
Sanitation, Drainage and Public Service	000		
Highways	27,710	61.0	
Agriculture and Miscellaneous	10,000	22.0	
Total	$ 45,398		3.3
Non-Governmental:	$ 215,102		15.5
Total Expenditures	$1,389,804		

[a]Amounts given to nearest dollar; items may not add to total due to rounding.

Source: Office of State Auditor, The Financial Report of Ohio Counties, 1959.

TABLE 5

Sources of Revenue and Per Cent of Total,
Gallia County, Calendar Year, 1959

Source	Amount [a]	Per Cent of Total
General Property Tax	$ 315,503	23.4
Motor Vehicle	237,110	17.7
Gas Tax	230,000	17.2
Sales Tax	26,542	2.0
State Grants	104,349	7.8
Federal Grants	236,494	17.6
Miscellaneous	45,644	3.4
General Government	56,880	4.2
Public Utility and Other Taxes	49,525	3.7
Sinking Fund and Bond Retirement	000	
Health, T.B. and General Hospitals	418	0.03
Charities, Welfare, and Corrections	3,154	0.2
Special Assessments	313	0.02
Protection to Persons and Property	11,292	0.8
County Board of Health	23,590	1.8
Total Revenue	$1,340,822	

[a] Amounts given to nearest dollar; items may not add to total due to rounding.

Source: Office of State Auditor, Local Government Taxation and Debt, Ohio, 1959.

Obviously, real estate and public utility property taxes account for the bulk of local government taxes collected at the county level. Distribution of taxes from this source was as follows:

School Districts	$ 994,132
Municipalities	39,111
County	298,959
Townships	71,099
State	55,362
Total Distribution	$1,458,663

Since 1930, appraised value of property in Gallia County subject to taxation has increased as follows:

Year	Value
1930	$ 21,113,730
1940	13,906,448
1950	18,332,184
1959	119,004,872

The tremendous increase since 1950 is probably due to the Kyger Creek Power Plant locating in the county. Total appraised value of property in the county subject to taxes levied in 1959 was $119,004,872 with a county tax rate of 2.70 mills per $1.00 valuation. Each township has a tax rate of 1.50 except for Addison, the Kyger Creek Power Plant location, and Gallipolis. Their township rates are .40 and .30 respectively. The school rates range from 13.40 to 21.50 for most townships and school districts. The Addison and Cheshire Village

TABLE 6

Classification of Commercial Farms According to Size[a]
(Large, Medium, and Small), Gallia County, Ohio
1949, 1954, and 1959

Class	1949 Number of Farms	1949 Per Cent of Total	1954 Number of Farms	1954 Per Cent of Total	1959 Number of Farms	1959 Per Cent of Total
Commercial	1,346	55.0	1,165	56.0	691	37.0
Large[b]	34	1.5	35	1.7	56	3.0
Medium[c]	392	16.0	310	14.9	360	19.1
Small[d]	920	37.5	820	39.4	275	14.6
Other[e]	1,101	45.0	915	44.0	1,191	63.0
Total	2,447	100.0	2,080	100.0	1,882	100.0

[a]Data are estimates made for all farms upon the basis of tabulation of data for a sample of approximately one-fifth of all farms. These estimates are subject to sampling errors and will not agree with the tabulation for all farms.

[b]Includes farms with sales of $10,000 and above (Classes I and II of the 1949 and 1954 classification and Classes I, II, and III of the 1959 preliminary classification).

[c]Includes farms with sales from $2,500 to $10,000 (Classes III and IV of the 1949 and 1954 classification and Classes IV and V of the 1959 preliminary classification).

[d]Includes farms with sales below $2,500 (Classes V and VI of the 1949 and 1954 classification and Class VI of the 1959 preliminary classification).

[e]Includes part-time, semi-retirement or residential, and abnormal.

Source: U.S. Bureau of Census, Census of Agriculture, Ohio,1950, 1955, and 1959 Preliminary Report.

Kyger Creek District rate is only 6.60, however. All townships are assessed .20 mills for each of the following: World War II Soldiers' Bonus, Korean Soldiers' Bonus, and County Library. Total rates for each tax district range from 10.30 in the Addison Township - Kyger Creek Local School District to 27.10 in the Gallipolis City - Gallipolis City School District.

THE PEOPLE AND THEIR LEVEL OF LIVING

Rural vs Urban

As the Census Bureau classified population in 1950, Gallia County was 68.4 percent rural with a total of 17,039 rural dwellers. Reports for 1960 indicate that both rural and urban population have increased during the past 10 years (Table 2, page 7). Rural population as percent of total population has decreased about two percentage points, however.

Gallipolis is the only urban center in the county.

Urban population increased about 11 percent since 1940, while rural population gained only 1 percent.

Farm vs Non-Farm Rural

The Census divides rural population into farm and non-farm. Farm population in Gallia County has experienced a steady decline since 1910 and rural non-farm has steadily increased. During the last decade farm population declined about 5 percent while rural non-farm rose about 10 percent. The farm population was 62.7 percent of total rural population in 1959 compared with 66.1 percent in 1950. Rural non-farm population accounted for 33.9 percent of rural population in 1940 and 37.3 percent in 1950 (Table 2, page 7). Some of this increase in the ratio of rural non-farm to farm population no doubt is due to the change in the Census' definition of a farm, but the trend was in effect before the new definition.

Farms By Economic Class

The Census Bureau's economic classification of farms includes commercial and other. Farms classified as other include part-time, semi-retired or residential, and abnormal. Change in class intervals in the 1959 preliminary report for the six classes of commercial farms complicate using this as a basis for comparison with previous census farm classifications. Certain census classes were combined, as explained in footnotes below table 6 on page 14 so that data for the three years would be comparable.

This comparison reveals that there has been a decline in the number and percent of total commercial farms during the last ten years. However, there has been an increase during the last decade in the number of large farms (average size of about 400 acres), and a decrease in medium and small farms (average size of about 200 and 50 acres respectively).

Farm Tenure

Most of the operators hold title to land. Of the county's 1,821 farmers, 71.9 percent are full owners and 18.7 percent are part owners. Only 9.1 percent are full tenants, and three-tenths of 1 percent are managers. Many of the part owners have no mortgage on the land they own (60 of 100 farmers interviewed had no real estate mortgage).

Table 7 shows changes in tenure for the county during the last 10 years.

In conjunction with the decrease in the number of farms, there has been a decline in the proportion of full owners but an increase in proportion of part owners, tenants, and managers.

TABLE 7

Classification of Farm Operators by Tenure, Gallia County, Ohio, 1950,1954, and 1959

Tenure	1950	Per Cent of Total	1954	Per Cent of Total	1959	Per Cent of Total
Full Owners	1,976	81	1,659	75.0	1,310	71.9
Part Owners	267	11	358	16.2	341	18.7
Managers	2	--	2	.1	5	.3
All Tenants	202	8	193	8.7	165	9.1
Total	2,447		2,212		1,821	

Source: U.S. Bureau of Census, Census of Agriculture, Ohio, 1950, 1954 and Preliminary Report for 1960.

The tenure pattern of the sample of 100 farmers surveyed for this study is shown by Table 8.

The sample yielded 57 percent full owners, 36 percent part owners, 7 percent full tenants and no managers. This compares with the census 71.9 percent full owners, 18.7 percent part owners, 9.1 percent tenants and three-tenths percent managers.

TABLE 8

Tenure Pattern on 100 Farms in Gallia County, Ohio

Tenure Class	Full-Time Number Cases	Full-Time Acreage Mean	Full-Time Acreage Range	Part-Time Number Cases	Part-Time Acreage Mean	Part-Time Acreage Range
Full Owner	31	131.0	29-305	26	97.9	24-269
Part Owner	24					
Owned		153.9	55-385		120.6	30-330
Rented		77.2	0.4-430		62.2	0.6-130
Full Tenant	4	230.7	150-323	3	122.3	78-179
All Farms	59			41		

Preliminary census data for 1960 shows that 77 of the farmers in Gallia County employed 104 "regular" hired workers in 1959. In addition there were 935 unpaid family workers who worked at least 15 hours on the farm in the week preceding enumeration.

Part-time Farming

There has been a substantial increase in off-farm employment as noted in Table 9.

TABLE 9

Change in Farm Operators Working Off the Farm One Hundred Days or More, Gallia County, Ohio, 1939, 1949, 1954, and 1959

Year	Total	Number Working Off-Farm 100 Days or More	Percent of Total
1939	2,769	508	18.3
1949	2,447	689	28.2
1954	2,080	780	35.3
1959	1,882	738	40.5

Source: U.S. Bureau of Census, Census of Agriculture, Ohio, 1940, 1950, 1955 and 1959 Preliminary Report.

An analysis of the age distribution of farm operators shows that more than one-fourth of the farm operators were 60 years of age or over, and more than one-half were above 50 years of age (Table 10). Average age of the 100 farmers in the sample was 52 compared with 52.5 average age reported by the census.

TABLE 10

Age of 100 Farm Operators, Gallia County, Ohio, 1960

Age	Number
Less than 35	8
35 - 39	11
40 - 44	13
45 - 49	15
50 - 54	12
55 - 59	14
60 and over	27
Total	100

Family Living Conditions

Gallipolis has almost 2,500 single residences, 20 apartment houses, and 50 duplexes. About 70 percent of the people of Gallipolis own their homes. Older homes, some ranging from 100 to 150 years, rent from $50 to $100 per month.

The 8,500 residents of Gallipolis have public services of the city plus the luxury of quiet country living. Eighty percent of the streets are paved and lighted. Fire fighting equipment consists of two pumper trucks; a police force of 13 provides protection and patrol service.

Water for residential use is from ground-water source and is not polluted. Garbage and trash collection and street cleaning are provided by the city.

There were 6,753 dwelling units in Gallia County in 1950, of which 6,313 were occupied, 68.9 percent were owner occupied.[1]

Farm family living conditions are indicated by the following data from the Bureau of Census figures for 1954: (1) Eighty-six percent of the farm families had a radio (2) 97 percent of the farms had electricity, (3) 75 percent telephones, (4) 38 percent piped running water, (5) 53 percent had television; (6) 12 percent bath or shower; (7) 72 percent automobiles, (8) 52 percent refrigeration, and (9) gross average income per farm was $2,638. Level-of-living indexes for each county in the United States have been derived by the U.S. Department of Agriculture. Table 11 compares Gallia County farm family level-of-living index with that of the 22 county low-income area, the 66 counties of higher income, and the state as a whole.

TABLE 11

Farm Family Level-of-Living Index, Gallia County Compared with Twenty-Two Low Farm Income Counties of Southeast Ohio, Sixty-Six Higher Income Counties, and the State of Ohio, 1945, 1950, and 1959

Year	Gallia County Index	Index for 22-Low Income Counties of Southeast Ohio	Index for 66 Higher Income Counties of Ohio	Index for State of Ohio
1945	74	92	148	134
1950	120	121	157	148
1954	129	134	169	160

Source: U.S. Department of Agriculture, Farm Operator Family Level-of-Living Indexes for Counties of the United States, 1945, 1950, and 1954, Agricultural Marketing Service, Statistical Bulletin No. 204, March, 1957.

Level-of-living indexes are based on four items that were available for farm-operator families for each county in the United States for five years in the twenty-five years covered by the analysis. Not all goods, services, and other satisfactions are included, but historical evidence indicates that most of the other various items are closely related to the four basic items used, which are (1) percentage of farms with electricity, (2) telephones, (3) automobiles, and (4) average value of products sold or traded in the year preceding the census (adjusted for changes in purchasing power of the farmer's dollar).

During the last decade, Gallia County's level-of-living has improved relatively more than that of the other low-income counties, the 66 higher income counties, and the state as a whole. The county index increased 55 points during the period compared to 42 points for the other low-income counties, 21 points for the 66 higher income counties, and 26 points for the state.

[1]U.S. Bureau of Census, County and City Data Book, A Statistical Abstract Supplement, U.S. Department of Commerce, 1956, p. 227.

LAND USE

Present Land Use

Approximately 64 percent of the land in Gallia County is suitable for cultivation. This includes all acreage in the county under land capability Classes I through IV. Table 12 compares the present use of acreage suitable for cultivation with land not suitable for cultivation, according to the standard capability classification.

Changes in Land Use

Changes from agriculture to other land uses are attributable chiefly to two conditions: (1) alternatives such as industrial or urban uses may mean higher returns and (2) submarginal agricultural land may be forced to abandonment or to lower return uses such as forestry.

During the last three decades the amount of land in farms in Gallia County has been decreasing steadily. In 1930 approximately 88 percent of the county's land was in farms. By 1959 land in farms was down to 66 percent (Figure 3).

Coal strip-mining has accounted for removal of some land from farm use. During the eleven year period, 1948-58, coal strip-mining had involved 3,623 acres. An estimated 13,372 acres of potential coal reserves remain according to data collected from the Division of Reclamation, Ohio Department of Natural Resources, by Robert M. Reeser.[1]

The higher returns from this use are temporary. After the coal is mined the land is abandoned, leaving an ugly gash upon an otherwise scenic landscape. Much time and considerable expense would be required to reclaim strip-mined land for use even as forest land.

As land in farms has decreased the number of farms has also decreased, but size of farms has increased. Since 1930 the number of farms has decreased from 2,769 to 1,821, an average of 31.6 farms per year over the last thirty years. Rate of decrease during the last to decades has been about 44 farms per year. Average size of farms has grown from 91 acres in 1930 to 109.5 acres in 1959 , the greatest rate of increase occurring since 1940. If this rate of change in number and average size of farms should continue for 20 years, projections indicate that by 1980 Gallia County will have approximately 1,200 farms averaging close to 142 acres per farm. This also means that land in farms will decrease further to a total of 160,000 acres or about 56 percent of total land area compared with the current 66.2 percent.

Accompanying the changes in land use have been corresponding shifts in acreage and importance of various crops. Ten year averages of acreage harvested in the major crops (Table 13) reveal that there has been a rather significant decrease in acreage of corn and wheat over the past three decades while average acreage of soybeans and oats harvested has increased.

The 10 year average for acres of hay harvested was about the same in 1950-59 as it was in 1930-39. However, more hay was harvested per farm during the last ten years then during 1930-39 as there were from 30 to 35 percent fewer farms.

Hay and oat crops became more important as dairying increased over the last three decades. Dairying has been the most important enterprise in the county since 1940 but was second to poultry in 1930.

---

[1]Robert M. Reeser, "Coal Strip-Mining Data," Unpublished data collected from the Division of Reclamation, Ohio Department of Natural Resources, Columbus, 1959.

TABLE 12

Present Use of Land Potentially Suitable for Cultivation Compared with Use of Acreage Not Suitable for Cultivation, Gallia County, 1958

Capability Class[a]	Cropland (acres)	Pasture and Range (acres)	Forest and Woodland (acres)	Other (acres)	Total (acres)
Suitable for Cultivation:					
Class I	3,120	448	--	37	3,605
Class II	29,738	8,723	5,194	1,700	45,355
Class III	17,714	26,114	31,717	11,855	87,400
Class IV[b]	4,670	13,767	20,211	5,643	44,291
Total	55,242	49,052	57,122	19,235	180,651
Per Cent of Total	30.5	27.3	31.6	10.6	100.0
Not Suitable for Cultivation:					
Class VI	990	16,483	29,739	8,309	55,521
Class VII	75	6,912	38,155	2,037	47,179
Total	1,065	23,395	67,894	10,346	102,700
Per Cent of Total	1.0	22.8	66.1	10.1	100.0

[a]See description of capability classes in previous section.

[b]Not adapted to intertilled crops but suited to small grains and other close growing crops.

Source: Preliminary data of the Ohio Committee, National Inventory of Soil and Water Conservation Needs. Summarization by the Ohio State University, Department of Agricultural Economics and Rural Sociology.

Improved transportation facilities and milk handling techniques opened such industrial centers as Charleston and Huntington, West Virginia as good milk markets for Gallia and surrounding counties.

TABLE 13
Comparison of Major Crops Grown in Gallia County by Ten-Year Averages of Acreage Harvested, 1930-39, 1940-49, and 1950-59

Crop	1930-39 Average (acres)	1940-49 Average (acres)	1950-59 Average (acres)
Corn	19,110	14,720	13,700
Wheat	6,700	4,960	2,740
Oats	830	1,230	1,490
Soybeans	---	430	820
Hay	20,400	23,270	21,070

Source: Census of Agriculture, United States Department of Commerce, Bureau of Census, 1930-59.

When bulk tanks became mandatory for grade A production for these markets in 1959, some of the small dairy farmers either quit or resorted to less profitable grade B milk markets. Farmers, above age 55 especially, felt they could not afford to go into debt for bulk tanks. Some of the younger dairy farmers with ten or twelve-cow herds decided they would have to increase herd size if a bulk tank were to be profitable.

The forced increase in investment has caused concern among dairy farmers. They are vitally interested in any program that would promote industrial development in the county and for the area. They believe that more industry would assure them continued good milk markets and possibly improve their current market position.

Modern transportation facilities, production technology, and large low-cost producers of poultry, fruits, and vegetables in the South and other areas have robbed the small truck farmer and poultry producer of his local market. These products can be shipped in fresh, during all seasons, cheaper than the local farmers can produce them. The impact of this competition on local growers is evident in the decline of the poultry, fruit, and vegetable enterprises since 1930 (Table 14).

The diminishing use of acreage for corn, wheat, and truck crops indicates that agriculture in Gallia County has become less intensive. This is in contrast to the 66 more prosperous counties of the state where farm land use has steadily become more intensified. Land suitable for intensive agriculture, Classes I and II, is much less plentiful in Gallia County than in the rest of the state. Only 17 percent is suitable for intensive agriculture. This is well above the 10.8 percent average for the 22 county area but less then one-third that for the rest of the state.

TABLE 14

Importance of Major Agricultural Enterprises as Percent of Total Cash Receipts from Sales of Farm Products, Gallia County 1940, 1950, and 1960

Enterprise	1930 Percent	1940 Percent	1950 Percent	1959 Percent
Dairy	21	30	28	34
Poultry	22	28	23	12
Tobacco	11	15	19	20
Truck Crops and Fruit	17	12	5	5
Hogs	--	7	8	4
Cattle and Calves	14	--	5	17
Other	15	8	12	8
Total	100	100	100	100

Source: Census of Agriculture, United States Department of Commerce, Bureau of Census, 1930-1959.

Expected Changes in Land Use Without a Planning Program

Allocation of land in Gallia County to specified uses since 1930 is shown on a percentage basis in Figure 3. Trends in these uses of land are projected to 1980.

Since 1930, land in farms has declined from 88 to 67 percent, due primarily to a 34 percent decrease in the number of farms. Projections to 1980 indicate that only 56 percent of the land area will be in farms, assuming current trends continue.

Amount of cropland harvested has remained about the same during the last three decades despite the decrease in the number of farms. The decrease has been about 7 percent since 1930. The projected trends show that expected crops for harvest in 1980 may occupy only 8 percent of the land.

Land designated as "other cropland" is composed of rotational pasture, idle cropland, and/or land planted to crops but not harvested due to low yield. This land use is expected to be practically extinct by 1980 if current trends prevail. In 1930 "other cropland" accounted for 24 percent of the land area. By 1960 it was down to 6 percent. Change in definition probably accounts for most of this difference. Projections indicate that crops are expected to be harvested from practically all designated cropland by 1980, leaving only a very small portion to be called "other cropland." This implies that very few crop acres are expected to result in crop failure, rotational pasture practice is becoming obsolete, and cropland is not expected to be left idle, and that only the better land will be considered as cropland.

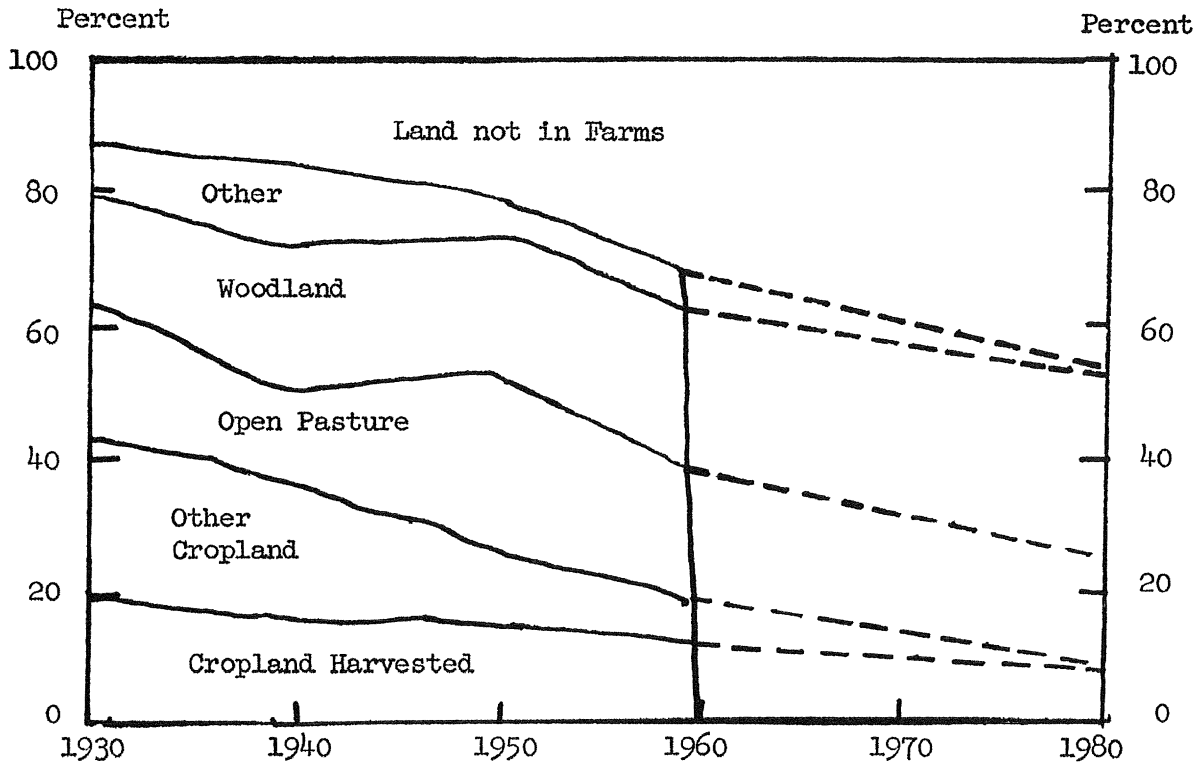
The portion of land devoted to open pasture has changed relatively little during the last three decades, and projected trends indicate that land allotted to this use is expected to remain fairly constant during the next twenty years.

The area devoted to woodland has increased from 16 to 24 percent since 1930. Another 3 or 4 percent increase is expected by 1980 if current trends continue.

With 948 fewer farms than in 1930, the portion of land not in farms has increased from 12 to 33 percent of total area during the last three decades. Projections indicate that by 1980 land not in farms and land in

Figure 3

Cumulated Percentage of Land Area in Specified Uses
in Gallia County by Census Periods, 1930-1960,
and Projection of Trends to 1980



Source: Census of Agriculture, United States Department of Commerce, Bureau of Census, 1930-1959.

farms is expected to be divided about 50-50. This corresponds with another 3¼ percent decrease in number of farms expected during this 20 year period.

How much of the increase in land not in farms and in farm woods is due to abandonment to brush and undergrowth is difficult to determine. Only a small portion of the land area not in farms has gone to such uses as urban growth, new roads, industrial development, or parks and recreational areas. Urban population has increased about 23 percent since 1930 and only about 5 percent since 1950, most of which has occurred to the city of Gallipolis. The increase of industrial land use in the county has been the 200 to 300 acres occupied by the Kyger Creek Power Plant, and the 3,600 acres for coal strip-mining. Kiwanis' Club Camp site and the 200 acre lake being constructed near the town of Vinton constitute the portion of land being used primarily for recreational purposes. Perhaps a few hundred more acres have been absorbed in new roads and widening of old roads.

Currently, the county has about 5,321 acres in roads, 374 acres in railroads, and 187 acres in air transportation facilities, bringing total transportation use of land to 5,882 acres.[1]

Land alloted to transportation, recreation, and industrial uses approximates 10,000 acres or about 3.3 percent of total land area. This and the 13,372 acres (about 4.5 percent of total land area) of coal reserves account for more than one-third of the 21 percent of the land not in farms. Some of the coal reserves undoubtedly are still in farms, however. Finally, the amount of land not in farms due to abandonment to brush and woodland represents about 14 percent of total land, according to this extimate.

The impact and implications of these changes in land use and agricultural production in the county are revealed somewhat in the responses to two related questions asked the 100 farmers interviewed for this study.

The question, "What do you think will happen to farming in Southeast Ohio when the present generation is gone?", elicited the following responses with this frequency:

Response	Frequency
Fewer but larger and better farms	54
Some farms will be abandoned	50
Don't know, young people aren't interested	20
Won't be much farming	8
Suppose it will continue as always	6
Some land will be reforested	3
Coal companies are buying up lots of farms	3
Number of dairy farms will increase	2
Government might own much of land	2
Some land will be developed for recreation	1

When asked, "Would you advise a young man that Southeast Ohio is a good place to get established in farming?", 57 answered, "No." They gave such reasons as (1) there is no future in it, (2) land is too poor, (3) could invest time and money better elsewhere, (4) requires too much capital in proportion to expected returns, (5) can't make a decent living at it, and (6) would do better to train for something else.

---

1 Fred R. Durr, "Transportation and Land Use in Ohio," a paper submitted in partial fulfillment of the requirements in Agricultural Economics 707, The Ohio State University.

Thirty-eight gave a qualified "yes," (1) if he could get good financial backing; (2) depends on his interest, determination, and farm background; (3) would advise him to learn a trade also.

Five said they did not know but did not think they would advise a young man to choose Southeast Ohio for a place to become established in farming. They offered no reasons.

These responses seem to indicate that most of the farmers are aware of the marginal and submarginal nature of many of the farms in Gallia and surrounding counties. Most of them do not blame the young people for being disinterested in farming in this area. In fact, most encourage young people to train for some other vocation, even though the county will lose them to the industrial centers.

With the prospective trends of more and more land being abandoned to brush, certainly the need for a planning program is evident if even near-optimum use is to be achieved.

The extent to which fixed and limited land area is allocated to this varied uses to meet the needs ofsociety depends upon the input of intelligence, skill, and technology. "There is no useless land. The ultimate resource is the resourcefulness of man."[1]

Desirable Land Use Through Planning

The hilly nature of most of the Gallia County land renders it subject to erosion. During the 1920's and 1930's when more of the land was devoted to crops, much top soil was lost by erosion. As more land has been allowed to return to brush and timber, erosion problems have become less severe.

From the standpoint of agriculture, desired land use would conform to recognized conservation practices. Most of the cropland of the county should be devoted to hay and pasture crops, and only land subject to minimum erosion (Classes I and II) should be used for cultivated crops. Land capability Classes III and IV, being less suited for cultivation, could best be used for hay, pasture, or woodland. All land of Classes VI and VII should remain in timber or be returned to it, preferably by planned reforestation rather than just being abandoned to brush. Currently, the county has no organized reforestation or land-use program. Most reforestation is voluntary and some promotion is done through Extension, ASC, and SCS agents. A few requests for assistance in procuring planing stock are being made, however.

A study of the forest resources of Southeast Ohio by W. B. McGinnies, et al, of the Central States Forest Experiment Station revealed that 91 percent of the forest land in the area is privately owned; 50 percent by industrial and other non-farm private owners and 41 percent by farmers. The study also pointed out why these owners do not take advantage of ACP cost-sharing programs for approved reforestation practices. Fifty-three percent were unaware that cost-sharing programs are available; 23 percent indicated lack of time to do the work; 9 percent were not interested in forestry; 3 percent were unsympathetic to subsidy programs; and 12 percent gave various other reasons.

Woods and forests seem to be the most desired use for the area. Returns from this will of course depend upon the effectiveness of planning and promoting a reforestation program which will better provide raw materials for the increasing demands of pulp and paper mills and the manufacture of many new wood products.

With 43 percent of Gallia County land currently in forest and farm woodland and an expected 60 to 70 percent in such use by 1980, it would seem wise for the county to plan and promote the development of forestry and complementary uses.

---

1 Marion Clawson, R. Burnell Held, and Charles H. Stoddard, Land for the Future (Baltimore: The John Hopkins Press, 1960), p. 18.

According to William P. Smith, the County Agricultural Extension Agent, some farms have been purchased by the U. S. Forest Service, others have been abandoned, and many of the remaining farms have at least a few abandoned acres. Much of the current reforestation involves simply allowing the natural vegetation to take over without planned planting.

Desirable uses other than agricultural and forestry will depend upon the county's success in attracting industry to locate within its borders. Undoubtedly industrial use of a portion of the land is and should be the county's first consideration since it is a high-return use.

Effective allocation of land to industry, agriculture, and forestry and complementary uses is basic to the county's economy and improved level-of-living. This will require extensive planning and cooperation of the people of the county and their leaders.

Plans to meet increased demands for urban development (residential housing, new businesses, and public institutions) should be formulated in advance. A study of how other areas have handled their planning and zoning problems could serve as a useful guide for drafting plans and ordinances to fit local conditions.

Effective Land Retirement from Agriculture to Attain Optimum Land Use

The preceding descriptive analysis of the county's resources and its position relative to current and expected land use with and without planning is the base for suggesting a course of action for stimulating the rate of retirement of land from agricultural production. The primary objective is to establish land in uses for which it is best suited, principally forestry, permanent grass and complementary uses like wild game preserves and recreational areas. Efforts to rationalize a plan which will respect the principles of a free society are conscientiously observed.

The Conservation Reserve of the Soil Bank is the National Program now in effect for promoting withdrawal of cropland from production. Although this program appealed to many farmers over the state and nation it does not seem very attractive to farmers in Gallia County. Only one farmer out of 100 interviewed for this study had contracted any land to the program.

Should a paper mill company be the buyer of this land and eventually locate a mill here, this would mean increased employment opportunities, new investment capital, new market opportunities, and greater community growth within the county and in surrounding areas. Location of a pulp mill in the county could also serve as a stimulant to other buyers who might wish to invest in land primarily for producing and marketing forest raw material to the processing plant.

The nation's pulp and paper industry is expanding and more expansion is indicated. Wood pulp demands by 1975 will require an estimated 270 more 300-ton-per-day mills than were operating in 1955.[1]

Another condition favorable to this program is the indication of farmers' willingness to sell. Of the 100 farmers interviewed, about one-fifth said they would sell their farms and move to town for a full-time job if moving costs were paid and jobs were available. Average age for this group was 46. Several farmers in the advanced age group indicated their willingness to sell but felt they could not afford to retire. Market value of 8 percent of the farms was given at an average of $38 per acre. This includes the improvements. Average size of farms

1. John H. Farrell, "What a Pulp Mill Could Mean to Missouri," Missouri Business, November, 1959.

in this group was 142 acres. Twelve percent valued their farms at 50-75 dollars per acre. Farm size averaged 150 acres in this group.

Assuming this to be a representative sample, 8 percent of the farms in the county (145 farms) averaging 142 acres per farm at $38 per acre would cost the buyer $5,396 per farm or a total of $782,420 for 20,590 acres. Assuming these farms can be purchased on the term payment plan at an average $2,000 per farm for the first payment, the initial outlay would be $290,000. With a flat $500 payment per year per farm to be applied on principal and interest (interest at 5 percent) the buyer could have clear title to the 20,590 acres within nine years. Cost per year would be $72,500. Total cost would be $906,975 or $44 per acre.

If annual payment should be $1,000 a year per farm to be applied on principal and interest, then annual cost would be $145,000 for about four years. With initial outlay of $290,000, total cost would be $843,610 or about $41 per acre. About one-fourth of this land is already in woods (Figure 3).

Individually owned small units which have been abandoned can, perhaps, be purchased at lower prices. Most of this land probably is brush or woodland, and even brushland may be considered a source of raw material for pulp mills. New technology facilitates use of cull material formerly considered unmarketable.[1]

Whether purchase of land at these prices on a term contract basis will appeal to a private company depends, of course, upon the economic feasibility of such a project. To determine this will require more research and careful budgeting of expected returns from current timber stands as well as costs and time required for establishing new timber growth to profitable marketable stage.

Should it prove unattractive for private enterprise, it seems reasonable for the government to initiate such a program, either as a collaborator with or separately from private enterprise.

Factors seemingly favorable for such a government program are:

1. It focuses directly on the low-income farm problem.
2. Both land and labor will be removed from agriculture on a relatively permanent basis.
3. It minimizes disruption of farmers' lives.
4. Taxpayers' money will be invested in something tangible, with potential of substantial returns in the long run.
5. Costs will be spread over a period of years.

Table 15 depicts expected costs of the land purchasing contract program at different scales of operation (from 5,000 to 1,000,000 farms). Calculations were for 100-acre farms at $75 per acre and 5 percent interest, payment to be amortized over a period of eight years.

Assuming that 20 thousand farms of 100 acres each can be purchased for $75 per acre on a eight year payment contract at 5 percent interest, the initial outlay ($2,000 per farm) would be $40 million. Annual costs ($1,000 per farm to be applied on principal and interest) would be $20 million. Total costs, including interest, over the eight year period would be $171,980,000.

Initial outlay for 500,000 farms of this size and cost per acre would be one billion dollars. Annual payments would total $500 million, and total cost for the eight year period would be $4,299,500,000 or about $537.4 million a year for eight years to remove 50 million acres of land from agriculture.

---

1 Farrel, p. 3.

TABLE 15

Cost of Purchasing Various Numbers of 100 Acre Farms at $75 per Acre by Eight-Year Land Purchase Contract Agreements at 5 Per Cent Interest

Number of 100 Acres Farms	Initial Outlay at $2,000 Per Farm	Annual Cost with $1,000 Annual Payment Per Farm	Total Cost at $75 Per Acre, Payment Distributed Over Eight-Year Period At 5 Per Cent Interest
5,000	$ 10,000,000	$ 5,000,000	$ 42,995,000
10,000	20,000,000	10,000,000	85,990,000
20,000	40,000,000	20,000,000	171,980,000
30,000	60,000,000	30,000,000	257,970,000
40,000	80,000,000	40,000,000	343,960,000
50,000	100,000,000	50,000,000	429,950,000
100,000	200,000,000	100,000,000	859,900,000
500,000	1,000,000,000	500,000,000	4,299,500,000
1,000,000	2,000,000,000	1,000,000,000	8,599,000,000

NEED FOR AND MEANS OF ACHIEVING FARM LABOR MOBILITY

The principal problem inherent in any effective program for removing land from agriculture is that of providing displaced farmers with alternative opportunities for making a living. This chapter deals with the problems and implications involving rehabilitation of displaced and underemployed farm labor in Gallia County.

Educational Profile, Special Training, and Background of Farm Operators

Introductory remarks to this study pointed out several vocational and georgraphic impediments to the implementation of greater mobility of farm labor. One major obstacle, of course, is the limited education and training, especially characteristic of the low income farm groups. Most of the farm operators, the older ones in particular, possess only the skills of agriculture. These specialized skills are not readily transferable to other industry.

To provide a better perspective of this problem of labor mobility Table 16 presents the educational profile of the 100 farmers in the sample.

TABLE 16
Education Level of 100 Farmers, by Age Groups,
Gallia County, 1960

Years of School Completed	Age Groups							
	Under 35	35-39	40-44	45-49	50-54	55-59	60 and Over	Total
Less than 7	-	1	-	-	1	1	4	7
7	-	-	-	1	2	1	4	7
8	1	3	3	5	5	7	12	36
9	2	1	-	2	-	-	1	6
10	2	-	2	-	1	1	3	9
11	-	1	1	1	1	1	-	5
12	2	5	5	6	-	3	1	22
13	-	-	1	-	1	1	-	3
14	-	-	-	-	-	-	1	1
15	1	-	1	-	1	-	-	3
16	-	-	-	-	-	-	1	1
Total	8	11	13	15	12	14	27	100

There are two model groups in this education profile. The largest group completed the eighth grade in school and represents more than one-third of the one hundred farmers interviewed.

The second model group completed twelve years of school. Twelve of the 22 farmers in this group were less then 45 years of age.

More than one-third of the 100 farmers in this sample have completed elevan or more years of school. About two-thirds of these are under 50. Eight of the one hundred completed more than twelve years. One is a college graduate with a B.S. degree in Animal Husbandry.

About one-fourth of the farmers in the sample had received special training in agriculture. Twenty-one had from one to four years of vocational agriculture in high school; four of these also had taken Veternans' On-Farm Training.

In this group of operators with special training and skills many were unable to derive a reasonably good level of living from their smaller farms. Some have secured part-time jobs to supplement their incomes. Others would like to secure part-time jobs or train for a new trade and would move, if necessary, to obtain a full-time non-farm job.

Seventy-five percent of the 100 farmers have lived on a farm practically all their lives. The number of years they have lived on their present farms ranges from one to 68 and averages 16 years. Table 17 compares the distribution of full-time and part-time operators according to number of years they have operated their present farms.

TABLE 17
Comparison of Full-Time and Part-Time Farmers' Length of Tenure on Present Farms, 100 Farmers, Gallia County, 1960

Years Lived on Present Farm	Number of Farmers		Total Farmers
	Full-Time	Part-Time	
1 - 4	7	6	13
5 - 9	6	9	15
10 - 14	17	9	26
15 - 19	12	4	16
20 - 24	5	6	11
25 - 29	3	3	6
30 - 34	4	1	5
35 - 39	2	1	3
40 and Over	3	2	5
Total	59	41	100

A breakdown of the 41 part-time farmers of the sample according to age and the number of years on their present job is presented in Table 18.

TABLE 18
Part-Time Farmers According to Age and Number of Years on Present Job, Sample of 100 Farmers, Gallia County, 1960

Age Group	Years on Present Job					Total
	1-4	5-9	10-14	15-19	20 and Over	
25 - 29	2	-	-	-	-	2
30 - 34	1	-	1	-	-	2
35 - 39	3	1	2	-	-	6
40 - 44	2	2	1	-	-	5
45 - 49	7	1	2	-	-	10
50 - 54	2	4	-	-	-	6
55 - 59	2	1	-	-	-	3
60 - 64	2	1	1	-	-	4
65 - 69	-	1	1	-	1	3
Total	21	11	8	-	1	41

About half of the part-time farmers have been working at their present jobs less then five years and over three-fourths for less than ten years. Most of the remaining one-fifth have had their present jobs for 10-14 years. More than one-half are from 40 to 55 years old, and one-fourth are in the 45-49 year age group.

Incomes reported from these non-farm jobs ranged from $250 to $6,000. Average (mean) for the 41 farmers was $2,461. More than 40 per cent were in the $2,400 to $4,000 range. Other family members of eight of these part-time farmers were working and their salaries averaged $2,782 per year. One operator and his family members had a total income of $8,750 from non-farm employment. Net farm income was only $246. The 41 part-time farmers had net farm incomes ranging from $100 to $6,300 an average of $1,517. Average net farm income plus average off-farm income (exclusive of other family members' income) brought the part-time farmers an average money income of $3,978. The average, including the earnings of all family members, was evidence that alternative opportunities for farmers in the county are very meager.

Improving Labor Mobility Through Retraining

The first problem considered here is determining means for improving vocational mobility of these farmers. Mobility is determined by the extent to which the individual has developed skills and dexterity in areas for which there is demand. Since farm skills are in demand only in agriculture and farm labor is in excess, any improvement of mobility for those skilled only in farming will necessitate their retraining.

Requisite to establishment of retraining programs is the knowledge that farmers desire to participate in such training.

Table 19 describes the extent of interest in retraining expressed by farmers interviewed for this study.

The fact that 43 farmers out of 100 would participate in a reasonable period of training (3 to 24 months) seems a significant indication of their desire to equip themselves for non-farm employment. If this is representative, Gallia County has approximately 782 farmers from the total of 1,821 who would take advantage of free training.

TABLE 19
Farmers According to Age Who Would or Would Not Participate in Training to Develop New Skills or Learn a New Trade if Training Were Free, 100 Farmers, Gallia County, Ohio, 1960

	Farmers Who Would Train			Farmers Who Would Not Train		
Age Group	Part-time	Full-Time	Total	Part-Time	Full-Time	Total
Under 35	3	3	6	1	1	2
35 - 39	3	2	5	3	3	6
40 - 44	2	5	7	2	4	6
45 - 49	8	4	12	2	1	3
50 - 54	2	3	5	4	3	7
55 - 59	3	4	7	2	5	7
60 and over	-	1	1	5	21	26
Total	21	22	43	19	38	57

Inquiry relative to possible increased interest in training if subsistence allowances were available during the training period did not elicit additional response. Only those who indicated they would train if it were free also indicated they would train if subsistence were also provided.

In addition to these farmers willing to train there were 22 family members who also were interested.

Thirty-five of the 57 farmers who were not interested in training said they were too old. Seventy per cent were over 50, and 46 percent were 60 or above. Twenty of this group said they preferred to farm and two were satisfied with their current part-time farming arrangements. Fourteen of the seventeen farmers under 50 who were not interested in training were operating larger farm units that provided comparatively favorable returns. Their unit size averaged 254 acres with an average of 86 cropland acres. Average net income for the 14 was $5,189 in 1959.

Although the average level of education for all farmers of the county is about eight years of school completed, the average for the 43 farmers of the sample who are interested in opportunities to develop new skills is 10 years. Almost one-half have completed high school. This indicates a reasonably adequate foundation on which to develop new skills, especially since the desire is present.

Only a very few of those trained would be able to find off-farm jobs in the county under present conditions. This introduces the problem of increasing the geographical mobility of farm labor. Some economists have suggested that monetary assistance such as grants, loans, or both be provided farmers who would have to move out of an area for non-farm employment. Such assistance would be applied to moving costs and perhaps some nominal allowance during the adjustment period.[1]

The interviewees were questioned about their willingness to sell their farms and move to town for full-time jobs if moving costs were paid. Nineteen of the 100 indicated they would be willing to change occupations if they could get a good job and if moving costs were paid. Fifteen of the 19 said they would move without monetary assistance if the job were a good one with a reasonable prospect for permanency. Specifications of annual income needed from full-time non-farm employment ranged from $3,500 to $6,000. Specified range of salary guarantee while making adjustments was from $2,500 to $5,000. Other data pertinent to this type of mobility are as follows:

	Range	Average
Size of Farms (acres)	51 - 305	190
Cropland Acres	10 - 85	24
Number of Years on this Farm	2 - 58	15
Sale Price of Farm (per acre)	$ 34 - 230	$ 103
Age of Operator	32 - 66	46
Size of Family	2 - 6	3
Net Farm Income (1959)	$100 - $4,500	$1,494

From these data it may be deduced that size of farm, number of years lived in the community, age of operator, or size of family does not always determine mobility.

Although a few families had net farm incomes of over $4,000, it seems that the lower average net farm income, $1,494, generally provides the motivation for a change in occupation. The chief obstacles then remain (1) lack of training and (2) lack of job opportunities.

Initiation, administration, and financing of special programs for training farmers in non-farm skills and/or assisting in relocation would, of course, be beyond the capacity of local resources. Building facilities for the schools are available in the county, but other resources such as technicians and skilled instructors, training equipment, and most of the financing probably would depend upon appropriations from federal and state governments. There might be some instances where industry would be willing to furnish facilities and instructors, or pay part of the costs.

---

[1] Riley S. Dougan, "Fewer Farmers," No. 9 of a Series prepared by the National Committee on Agricultural Policy, "The Farm Problem --- What Are the Choices?" Sponsored by the Farm Foundation and the Center of Agricultural Economic Development, Ames, Iowa, 1960.

Improving Labor Mobility Through Industrial Development

A concerted effort to bring more industry into the county would be complementary to the training program. A favorable attitude of the county's citizens toward industrial development is essential for attracting industry. Interviews with twenty businessmen in addition to the one hundred farmers, reveal that the people of Gallia County are keenly interested in more industry. Ninety-six of the farmers and all of the businessmen interviewed favor more industrial development. Most of them were doubtful that agricultural trade would be able to sustain the economy of the county as it has in the past. A few believed it would sustain the present rate of growth, but they would like to see the rate increased.

Several important factors to be considered by industry in choosing a location are (1) efficient and relatively cheap power must be available, (2) availability of raw materials within the surrounding area, (3) proximity to large markets, (4) a satisfactory supply of local labor often is an important determinant, and (5) potential for attracting other complementary industry to the same locality. Other considerations include (1) a favorable tax climate, (2) availability of appropriate plant sites, (3) adequate transportation and communication facilities, and (4) adequate schools, churches, hospitals, and other service institutions.

Gallia County resources as enumerated previously seem to adequately meet major requirements for certain industrial development. Sufficient and relatively cheap power in the form of electricity and natural gas are available. Coal and oil are available either from local sources or by barge on the Ohio River. Water supply is abundant. The sustained low flow of the Ohio River ranges from four to seven billion gallons per day. Transportation facilities consist of the Ohio River, two railroads, one national highway and four state highways. These facilities give the county favorable access to important market centers.

Labor is available at the semi-skilled and unskilled levels. Raw materials for certain industry (wood pulp mill, for instance) are available. Plant sites are available along the Ohio River and in some areas of the interior. Tax rates are below the average for the state. Public school facilities are in good condition with a favorable ratio of assets to liabilities and with capacity above current enrollment. High school curriculums provide opportunity for a generally well rounded secondary education.

Other educational facilities include a school of nursing, a four year liberal arts college and the county library. Churches appear to be adequate with leading denominations represented. Two hospitals and two privately owned clinics are equipped to render adequate medical service. The Holzier Hospital is one of four medical centers in Ohio giving complete diagnostic service, and it has one of the six cancer clinics in the state.

In addition to these, favorable conditions for industrial development are implied by the presence of the Kaiser Aluminum and Chemical Corporation Plant located across the river in West Viginia.

Three or four groups have organized to plan for industrial development and contact and inform prospective industry of the attributes contributing to the county's desirability as an industrial location. One group, the "Organized Industrial Development Corporation" has set a goal of $50,000 to be solicited for the purchase of a plant site so an option to the land can be offered to prospective industries ($12,000 is already pledged). Plans are to raise enough funds to build the buildings if necessary. A list of possible plant sites has been compiled, and the Chamber of Commerce is active in making contacts.

A vertical integration project recently initiated by the Evans Grocery chain bears promising prospects for expansion and seems a well accepted development in the county. This company originated in Gallipolis with a small family owned and operated grocery store. It now has several small supermarkets in Southeast Ohio and parts of West Virginia and Kentucky. Recent vertical integration projects initiated by the company include establishment of a meatpacking plant just southwest of Gallipolis and two restaurants in Gallipolis. This company also has purchased several farms in the county from which it is producing and feeding out much of the beef and pork processed through its packing plant. It employs a few farmers to help operate the livestock production enterprise and a few have jobs at the packing plant.

Careful attention should be given to the type of industry chosen. Effort should be directed toward attracting industry which would utilize local resources most effectively and complement land use and rehabilitation programs. For example, a wood pulp mill would complement the proposed reforestation program by utilizing the land product and providing employment opportunity for displaced and underemployed farmers.

A 200-ton-per-day mill would require a total labor force of about 500 persons, including office personnel, executives, mill crews, foresters, loggers, and farmers. It would bring an annual payroll of about $2 million into the area and would purchase about $1.5 million worth of raw materials. Such an industry is also a large consumer of other products and services.[1]

A chemical plant, on the other hand, employs highly technical and skilled labor and would utilize very little raw material. It would not complement the proposed land use and labor mobility measures.

Implications are that coordination of industrial development and the proposed programs for land use and labor retraining is essential if effective and desirable land use and labor mobility are to be achieved.

SUMMARY AND CONCLUSIONS

Review of census data reveals that almost three-fourths of our nation's farmers are forced to subsistence living (73 percent have less than $2,500 average net income). These facts have led some agricultural economists to conclude that the low-income farmers' plight constitutes the basic problem of agriculture and that other agricultural problems are related to and grow out of failures in attempts to alleviate this condition. This depressing condition continues to exist in our agricultural industry. Agricultural price support programs have failed to provide any substantial relief or assistance for these farm families.

Low-income farmers operate units too small to employ more than limited amounts of the technical efficiencies of production or to fully employ available family labor. Unless they can acquire control of more land and capital, find part-time off-farm employment, or shift to full-time non-farm employment, their incomes will remain at subsistence levels. Benefits to these farmers from price supports (whether supports are high or low) are relatively insignificant because of the small volume of output. Impediments to their making the necessary adjustments either within or outside of agriculture are many. The most obdurate of these are (1) lack of capital, (2) lack of training for and knowledge of alternatives, (3) deficiency of alternative opportunities locally, (4) costs and risks of moving, and (5) strong community ties.

---

[1] John H. Farrell, "What a Pulp Mill Could Mean to Missouri," Reprint from Missouri Business, November, 1959.

Some low-income farmers are present throughout agriculture, but certain regions have extensive concentrations of these inefficient farm units, have been characterized as low-income farm regions. Such regions occur in the South, the Ozarks, the cut-over areas around the Great Lakes, and the Spanish-American settlements of the West.

Since opportunities for attaining a reasonable level of living from farming appear to be so extremely limited, in many cases non-existent, the solution to the economic problems of most of these low-income rural families appears to lie in off-farm employment. At the same time, the equating of farm production to demand appears to require reduction in quantity of production inputs, particularly land and labor.

The basic objective of this study was to determine the most effective and acceptable means of stimulating land retirement and labor movement from agriculture. Specific objectives pertaining to land retirement were --

1. To determine the financial aid or other assistance needed to induce farmers to retire their land.
2. To determine the size and type of farm which would be most readily retired.
3. To determine the most efficient use pattern for the retired land.
4. To determine the most effective zoning program for maintaining good land use.

Specific objectives relative to farm labor adjustment were --

1. To determine the minimum compensation necessary to induce farmers to shift from farm to non-farm employment.
2. To determine what employment opportunities exist in the area.
3. To determine possibilities of implementing a retraining program for industrial or other non-farm employment.
4. To determine labor needs for alternative uses of retired farmland.
5. To determine the effects of land and labor retirement from agriculture on community institutions and the local economy.

Soils suitable for intensive agriculture comprise only 17 percent of total land. Decrease in the use of cropland acres for corn, wheat, and truck crops, and increased acreage of forage and pasture crops in conjunction with increased dairying and livestock production are indicative of the trend toward more extensive agriculture.

The number of farms has decreased steadily since 1930 and average size of farms has increased. The number of large farms (average about 400 acres) has increased about 65 percent since 1930. This seems to be evidence of some consolidation of farms. However, land not in farms shows steady increase since 1930 and now accounts for 33 percent of total land area.

The impact and implications of these changes in land use are reflected in the opinions of farmers relative to what will happen to agriculture in the area when the present generation of farmers expire. Fifty-four percent of the farmers interviewed believe that larger and better farms ultimatly will develop; 50 percent expect that more farms will be abandoned; and 20 percent pointed out that not many young people are interested in trying to farm in the area. Moreover, 57 percent said they would not advise a young man to try to become established in farming in Southeast Ohio.

It appears that the appropriate use for most land in the county would be forestry and complementary enterprises. However, the individually owned small units are of even more uneconomic size for application of modern techniques of forestry production than these farm units are for commercial agricultural production.

The most acceptable method for creating units of efficient scale for forestry production appears to be purchase and consolidation of the small units either by government or private investors. This suggests extensive outlay of capital funds to be tied up for several years before substantial returns from the investment could be expected.

Contract provisions for making a nominal initial payment and principal payments with interest over a reasonable period of years would give the buyer control of the land with a minimum initial outlay. This also would give him opportunity to build up forest production while paying off the principal. The buyer could be either the government or private entrepreneur.

Options to the farmer might allow him to (1) live the remainder of his life in the farmhouse free of rent, (2) retain possession of house and buildings and the land on which they are located, (3) convert a portion of his equity in the land into stock in the company, or(4) choose from other desirable provisions.

This could mean permanent retirement of land from agriculture, an opportunity for older farmers to retire without having to break community ties, and opportunity for some farmers to make the transition into non-farm employment with less difficulty. Desirable complementary programs would include (1) retraining, (2) assistance in locating employment, (3) financial aid for moving, and (4) industrial development in the county.

Assuming the sample to be representative, one-fifth of the farmers are willing to sell their farms and seek non-farm employment. Eight percent would sell at an average of $38 per acre (average size of farms, 142 acres), and 12 percent valued their farms at $50 to $75 per acre (average size, about 100 acres). It may be assumed that abandoned farms can be purchased for less.

Should this kind of land purchasing prove unattractive to private entrepreneurs, certain factors favoring a government land purchasing program are --

1. It focuses directly on the low-income farm problem.
2. Relatively permanent removal of both land and labor from agriculture would be accomplished.
3. It minimizes disruption of farmers' lives.
4. Tax money will be invested in something with potential returns, tends to offset costs.
5. Costs will be spread over a period of years

A successful program for removing land from agriculture creates the need for a companion program to provide displaced farmers with alternative employment opportunities. Since farm skills have very limited application outside of agriculture, improvement in farm labor mobility will necessitate retraining.

Success of a retraining program is, of course, dependent upon the level of education, natural ability, and desire of the prospective trainees. A significant measure of the desire of Gallia County farmers for retraining was indicated. Forty-three of the one hundred interviewees expressed interest in participating in a reasonable period of training (3 to 24 months) if it were free. Of the 57 who are not willing to train, 35 said they were too old. Eighteen of these were 65 and above, 14 were 55-64 and three were 45-54.

Skills of this group were limited; those skills reported were chiefly mechanics, rough carpentry, welding, and sales. Most indicated interest in further training in these and related areas. Some wanted information describing areas of deficit labor supply before indicating a preference. This suggests the need for more information relative to areas of industry where certain skills are in greatest demand.

The average level of education for the 43 farmers expressing interest in retraining was ten years of school completed. Almost one-half have completed high school. This seems to be a reasonably good foundation on which to develop new skills, especially since the desire is present.

Implementation and financing of a retraining program are beyond the capacity of local resources. Building facilities are available, but provisions for costs of salaries of skilled instructors and costs of specialized training equipment would depend upon appropriations from federal and state government.

Complementary measures for improving mobility of all labor in the county are --

1. Setting up centers to dispense information on job opportunities.
2. Expanding and reorienting primary and secondary school programs to provide better training for non-farm employment.
3. Providing free training or loans to enable out-of-school youth to obtain specialized training.

Action for promoting industrial development in the county is in progress. A favorable attitude toward industrial development exists among the citizens. Committees are contacting prospective industries, and funds are being solicited for purchase of land so an option can be offered to attract industry.

Considering the county's potential for forestry development and the established need for more pulp mills, this seems to be the logical choice. The county and surrounding area can supply most of the raw material and other resources.

BIBLIOGRAPHY

Books

Black, Donald J. and Westcott, George W., Rural Planning of One County, Massachusetts. Cambridge: Harvard University Press, 1959.

Clawson, Marion, Held, Burnell R. and Stoddard, Charles H., Land for the Future. Baltimore: The Johns Hopkins Press, 1960.

Ginzberg, Eli, Human Resources, The Wealth of a Nation. New York: Simon and Schuster, 1958.

Heady, Earl O., et al., Agricultural Adjustment Problems in a Growing Economy. Ames: The Iowa State College Press, 1956.

James, Clifford L., Principles of Economics. College Outline Series. New York: Barnes and Noble, Inc., 1956.

Jessness, Oscar B. and Nowell, Reynolds I., A Program for Land Use in Northern Minnesota. St. Paul: University of Minnesota Press, 1935.

Standard Sources of Statistics

Office of State Auditor, Local Government Taxation Debt, Ohio, 1959. Columbus, 1960.

Office of State Auditor, The Financial Report of Ohio Counties, 1959. Columbus, 1960.

Smith, Mervin G. et al., Ohio Farm Income, 1959. Department of Agricultural Economics and Rural Sociology, Ohio State University, Ohio Agricultural Experiment Station, Agricultural Estimates Division, and Agricultural Marketing Service. Columbus, 1960.

U.S. Bureau of Census, Thirteenth Census of the United States: 1910. Population, Vol. II.

U.S. Bureau of Census, Fourteenth Census of the United States: 1920. Population, Vol. II.

U.S. Bureau of Census, Fifteenth Census of the United States: 1930. Population, Vol. II.

U.S. Bureau of Census, Sixteenth Census of the United States: 1940. Population, Vol. II.

U.S. Bureau of Census, Seventeenth Census of the United States: 1950. Population, Vol. II.

U.S. Bureau of Census, Eighteenth Census of the United States: Preliminary Report for 1960. Population.

U.S. Bureau of Census, Fifteenth Census of the United States: 1930. Agriculture.

U.S. Bureau of Census, Sixteenth Census of the United States: 1940. Agriculture.

U.S. Bureau of Census, Census of Agriculture: 1950.

U.S. Bureau of Census, Census of Agriculture: 1954.

U.S. Bureau of Census, Census of Agriculture; Preliminary Report: 1960.

U.S. Bureau of Census, County and City Data Book, A Statistical Abstract Supplement, U.S. Department of Commerce, 1956.

U.S. Department of Agriculture, Farm Operator Family Level-of-Living Indexes for Counties of the United States, 1945, 1950 and 1954. Agricultural Marketing Service, Statistical Bulletin No. 204, 1957.

U.S. Department of Agriculture, Estimated Budget Expenditures (based on 1961 budget), Office of Budget and Finance, 1960.

Other Published Material

Botte, C. J., Ohio Business Facts, Economic Areas by Counties and State Totals, Research Department, Ohio Chamber of Commerce, Columbus, 1960.

Farrell, John H., "What a Pulp Mill Could Mean to Missouri," Missouri Business, November, 1959.

Hendrix, William E., "Problems of Low-Income Farmers," Farm Policy Forum, Vol. II, No. 1, Summer, 1958. Ames: Iowa State College Press.

Marion, A. W. et al., "Know Ohio's Soil Regions," A Soils Map and Descriptive Legend of Soil Regions in the State of Ohio. Columbus: Ohio Department of Natural Resources, Division of Land and Soil, 1956.

McGinnis, W. G. et al., "Forest Resources of Southeastern Ohio," Ohio State Natural Resources Seminar, Central States Forest Experiment Station, 1960.

Moore, H. R. and Wayt, W. A., Policies and Standards in Rural Zoning. Research Circular 89, Ohio Agricultural Experiment Station, Wooster, Ohio, 1960.

National Committee on Agricultural Policy, The Farm Problem - What Are the Choices? A Series of Reports Sponsored by the Farm Foundation and the Center of Agricultural and Economic Adjustment. Ames, 1960.

Newberg, Richard R., "Needed: A Reorientation of Government Agricultural Programs," The Proponent. A Publication of the Ohio State Young Republican Club. Columbus, 1961.

Ohio Department of Natural Resources, Water Resources of Southeastern Ohio. Columbus, 1959.

Pierce, L. T., Climatological Summary. Weather Bureau Office. Columbus, 1959.

Wall Street Journal. March 30, 1961.

Unpublished Materials

County Land Use Committee, "Land Use Planning Report". Gallia County, 1940.

Durr, Fred R., "Transportation and Land Use in Ohio". Unpublished report of research in Land Economics at The Ohio State University, 1959.

Newberg, Richard R., "What Might Be Done to Solve Our Agricultural Problem," Unpublished paper. Department of Agricultural Economics and Rural Sociology, The Ohio State University, 1960.

Ohio Committee for the National Inventory of Soil and Water Conservation Needs. Unpublished data. Columbus, 1959-1960.

Reeser, Robert M., "Coal Strip-Mining Data," Unpublished data collected from The Division of Reclamation, Ohio Department of Natural Resources, Columbus, 1959.

Sitterly, John H., "Adjustments in Land Use at The Extensive Margin of Farming in Ohio," Unpublished Ph.D. dissertation, The Ohio State University, 1944.